AMENDMENTS TO THE CLAIMS

Please amend the claims as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS

1. (Original) An apparatus for enabling transmission of parallel data, including a plurality of parallel synchronization packets, from a first parallel bus to a second parallel bus via a serial data channel, having a first logical terminal and a different second logical terminal, comprising:

    a. a first logic element, in data communication with the first parallel bus, that detects a parallel synchronization packet in parallel data received from the first parallel bus and that generates a synchronization character used in a serial data transmission protocol upon detection of the parallel synchronization packet, the first logic element also configured to output the parallel data so that the parallel synchronization packet is replaced by the synchronization character;

    b. a serializer, in data communication with the first logic element and the first logical terminal of the serial data channel, that converts data from the first logic element into a serial data stream that is transmitted to the first logical terminal of the serial data channel, the serial data stream including the synchronization character;

    c. a de-serializer, in data communication with the second logical terminal of the serial data channel, that converts the serial data stream into a plurality of parallel data packets; and

    d. a second logic element, in data communication with the de-serializer and the second parallel bus, that detects the synchronization character and that converts

the synchronization character into a parallel synchronization packet and that transmits the plurality of data packets onto the second parallel bus.

2.   (Original) The apparatus of Claim 1, wherein the first logic element further converts the plurality of parallel data packets to a word length that corresponds to a protocol employed by the serializer.

3.   (Original) The apparatus of Claim 2, wherein the first logic element performs an 8b/10b encoding.

4.   (Original) The apparatus of Claim 1, wherein the first logic element further inserts a comma character adjacent to the synchronization character.

5.   The apparatus of Claim 1, wherein the second logic element further converts the plurality of parallel data packets from the de-serializer to a word length that corresponds to a protocol employed by the second parallel bus.

6.   (Original) The apparatus of Claim 5, wherein the second logic element performs an 8b/10b decoding.

7.   (Currently Amended) A method of enabling transmission of parallel data, including a plurality of parallel data packets and a plurality of parallel synchronization packets, from a first parallel bus to a second parallel bus via a serial data channel, having a first logical terminal and a different second logical terminal, comprising the steps of:

    a.   converting each of the plurality of parallel data packets received from the first parallel bus into a serial data stream in a sequence corresponding to a sequence in

which each parallel data packet is received from the first parallel bus;

b.   detecting a parallel synchronization packet received from the first parallel bus and inserting a synchronization character and a comma character into the serial data stream at a position corresponding to a position in the first parallel bus from which the synchronization packet was received, thereby replacing the synchronization packet;

c.   transmitting the serial data stream to the first logical termination of the serial data channel;

d.   receiving the serial data stream from the second logical terminal of the serial data channel, converting the serial data stream back into the plurality of parallel data packets while detecting the synchronization character and the comma character and inserting a parallel synchronization packet at a position in the plurality of parallel data packets corresponding to the position in the serial data stream where the comma character and the synchronization character were detected; and

e.   transmitting the plurality of parallel data packets onto the second parallel bus.

8.   (Original) The method of Claim 7, further comprising the step of converting the plurality of parallel data packets to a word length that corresponds to a protocol employed by the serializer.

9.   (Previously Presented) The method of Claim 8, wherein the converting step comprises performing an 8b/10b encoding.

10.   (Original) The method of Claim 7, further comprising the step of converting the plurality of parallel data packets from the de-serializer to a word length that corresponds to a protocol employed by the second parallel bus.

11. (Previously Presented) The method of Claim 10, wherein the converting step comprises performing an 8b/10b decoding.